



The Blurb



Newsletter of The Phil-Mont Mobile Radio Club

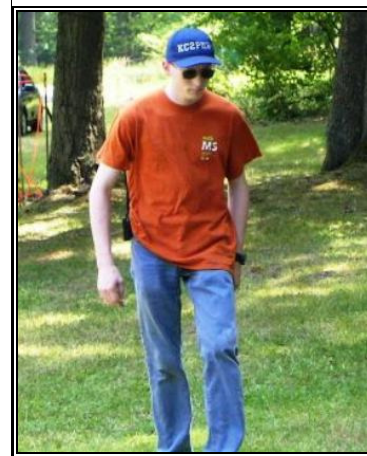
61 Years of Public Service, 1949 to 2010

Volume 60 Number 8

www.phil-mont.org

August 2010

Yes indeed, a fine *Field Day* weekend was had by all!



Clockwise from top left: Fred & Penny Uebelhoer's mobile station; Uebelhoer sisters Michaela, KB3UFY & Audrey, KB3UFX; our tech guru Andrew, KC2PMW (back when he held a General ticket); Keiko and John Simon - KB3SJT & KB3SJS – outside *Chez Simon*

These stories just in: Andrew, KC2PMW upgraded to Amateur Extra at the July VE session.
Congratulations Andrew!

Barry, K3EUI and Al, W3STW announce a net to explore the many digital modes available - tune in on the repeater for the new *Digital Net* on Tuesdays at 1900 L!

The Blurb is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. <i>Copying and quoting</i> is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor. <i>Subscriptions</i> are available to non-members for \$12, addressed to the Treasurer. Editor: Rick DeVirgiliis ND3B nd3b@arrl.net 215-908-7225 Club Archivist: Gwen Patton NG3P ng3p@arrl.net 610-630-9862 Labels and mailing: KB3IV Submissions deadline: All copy must be in the hands of the Editor by the 20th of the previous month.		Directors: W3AOK (12) KB2ERL (10) WU3I (11) WA3KIO (12) N3MT (10) W3STW (11) N3XKE (12)	Contact Phil-Mont: P.O. Box 88 Abington, PA 19001 http://www.phil-mont.org Website: Eric N3QV & Maggie K3XS For club information: Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: WB3KOJ@comcast.net
		Sunday Morning Net Schedules • 2 Meter/ 70cm Net..... at 0930L on W3QV repeater • 10-on-10 Net at 1000L 28.393 MHz USB (±QRM) • 75 meter Net at 1020L 3.993 MHz LSB • ARES at 2100L on the W3QV repeater	
Committees Archives: NG3P Audit: NS3K Blurb folding: KB3IV & N3GLU Directory: KB3IV	DX: N3MT Emerg.Coor: K3HWE Field Day: KE3QB Internet: N3QV & K3XS Membership: N3XKE Net Control: KB3IV	Publicity: W3RM Program: Club VP Public Service: KE3QB Refreshments: W3AOK Repeater: W3AOK	Scholarship: W3RM Skywarn: WX3PHI Sunshine: N3GLU VE Program: NS3K Welcome: N3UBY Youth: N3MT

All visitors are welcome!

The club meets at 7:30 PM on the *second* non-holiday Wednesday each month except July and August at **Roxborough Memorial Hospital**, 5800 Ridge Avenue, Philadelphia, PA 19128
Maps and directions are available at www.phil-mont.org.

License Examinations are held on the fourth **non-holiday Thursday** each month at **Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002**
Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or jmccloskey@msn.com for the latest information.

Club Stations W3QV/R: The Jim Spencer Memorial Repeater System
Ridge & Port Royal Avenues, Philadelphia, PA **Trustee: W3RM**
147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz
Reach us on EchoLink through W3QV-R
W3AA Trustee: WU3I
W3EM: Field Day/special event station Trustee: N3QV

The Officers

Pres: KB3IV Ed Masarsky 310 Saw Mill Ln. Horsham PA 19044 kb3iv@comcast.net
Vice Pres: N3QV Eric D. Marano, PO BOX 233, Skippack PA 19474 n3qv@arrl.net
Sec: KB3MIV Jen Miller 9427 Kirkwood Rd. 1st Fl. Phila 19114 jencaz@verizon.net
Treas: W3RM Richard A. Moll roger.mike@verizon.net
Asst. Treas: N3MT Michael P. Taraborrelli michaelmt_1999@yahoo.com

The Prez Sez ...

Hot!! Hot!! Hot!! That's the first and last time I will utter that word. I don't want to hear any complaints about the snow next winter.

Field Day was a rousing success because 6 meters was open and W3STW made his satellite contact. We had new operators joining us this year and they were a welcome addition. Thanks to the Uebelhoer family, Fred, KA3IRJ, and Penny, Audrey, KB3UFX, Michaela, KB3UFY for bringing their superstation on wheels. The motor home was a great operating position. Also, the Simon family, John, KB3SJS and Keiko, KB3SJT, set up their camper and operated 20 meters. John was looking forward to putting his FT-101 to the test, and it worked well until the sparks and smoke appeared. Never fear, Jack, WA3BXH to the rescue. He had a brand new IC-706 MKIIG that had never been out of the box and gave it to John so he could continue operating. What a guy!

The 160-meter balloon vertical ran into some problems and will be redesigned for next year. We were able to rescue the Marple-Newtown Club's effort to deploy a balloon antenna. They had two balloons explode before they could make any contacts. K3JCS, John, came to our site and we were able to give him two spare balloons to get them up and running. Glad to help our fellow Hams, especially since they provide us space for our Newtown Square offsite receiver.

I was really pleased with our wireless Internet hot spot available to us thanks to Jack, WA3BXH. It allowed W3STW to have up to date co-ordinates for his satellite passes. It also gave us the ability to upload our contact logs to the ARRL directly from our FD site. Many

thanks to Andrew, KC2PMW, and Bill, W3AOK, who were responsible for our new system of logging and reporting. Everything worked perfectly.

We have received many suggestions for improving next year's FD operation. When board and club meetings resume we will take all the ideas and formulate a new and improved plan of action. Next year will be bigger and better.

I better stop writing because I know our editor needs the room for all the photos and articles he has for this issue of the Blurb. I will be operating from my Cape Cod shack the second and third week of Aug. Thanks to Echolink, I will keep in touch with what's going on down here and fulfill my turn as net control on the third Sunday of the month. Sorry guys, no HF this year. I promised N3GLU that I would not drag everything I own with me. I already did that for Field Day.

de Ed, KB3IV

Phil-Mont Birthdays & Tidbytes

August Birthdays

- 01 Ralph Germanotta K3FXR
- 02 Tom Bohlander WA3KLR
- 03 Lloyd F. Sturgeon W3LYS
- 05 Fred J. Uebelhoer Jr. KA3IRJ
- 09 Carolyn Popovic KA3VLJ
- 14 Lucille Gargano (XYL N3YGY)
Patricia MacKenzie (XYL W3RED)
- 15 Art Lester W3WFI
- 17 Kitty Newman (XYL KC2FIO)
- 18 Norma Coupe (XYL WA3BXH)
- 19 Donna Lynn Larkin WA1WYQ
(XYL KA2FFP)
- 20 Keiko Simon KB3SJT
- 24 Frank Burstein K3FSB
- 30 Vincent Buono WA3ADI

Membership Stats

At press time, P.M.R.C. had:

79 Full Paid Members

8 Family Members

6 Youth Members (Under 17)

2 Honorary Members

0 Pending Member

NOTE: Please contact Ed, KB3IV, with any future directory changes or mailing issues.



***Next test session is Thursday evening,
August 26th.***

***Many thanks to our VE team including
Jack, Bill, Ed and our newest VEs John
and Tony!***



Congratulations to **Chris Brady, N3CB** for his photo of Dick, W3RM and John, KB3SJY in the August QST magazine. Great work Chris!

Radio Stores ... 'N' More

by Bob Thomas, W3NE

H&R MANUFACTURING – Part 3

Interesting work and farewell

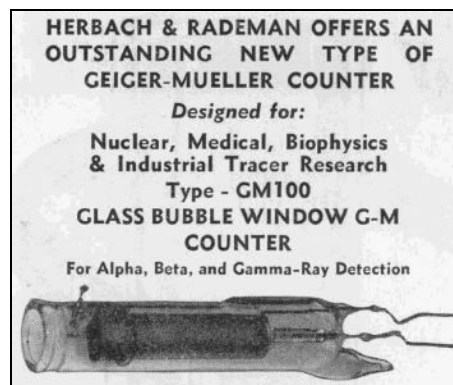
By September 1944 the Allies were moving toward victory in Europe, still to be confronted by unexpected German resistance in the Battle of the Bulge. In the Pacific, the Marines had captured Guadalcanal and were launching what would be an inconceivably bitter offensive on Peleliu, memorialized in the recent HBO *Pacific* series. With that backdrop, and safe at home, I began my final year at high school and returned to part time work at H&R.

On the first day back I was taken to the third floor, an open loft, bare except for an air compressor, spray gun, and a small table. My job for the next six months would be mostly to spray Moisture Fungus Proofing compound (MFP) on Allen-Bradley potentiometers. MFP, as its name implies, was intended to inhibit growth of fungus on military electronic equipment. It was a brown varnish-like compound that dried rapidly. The compound was typically sprayed all over everything on completely assembled equipment or on selected components if they would be inaccessible for MFP application after final assembly. Although MFP was required only for gear destined for the South Pacific, it came into general use on anything that could go either to the Pacific or European theatres. Inspectors examined MFP coverage and would stamp “MFP” and date of application, if approved. It protected components and wiring alright, but it created havoc for service personnel when joints had to be unsoldered and new components or wires reconnected. Hams found that out when they converted dirt-cheap surplus gear to amateur use after the war, often by making extensive circuit modifications.

The “details” of my job were to place about 200 potentiometers at a time in an 18”x24” sheet aluminum mask that had holes punched in it to shield the pot’s solder lugs while MFP was sprayed

on its phenolic insulator and rear shell. A mask would be loaded, MFP sprayed on in a uniform layer, and then set aside while another mask was loaded and sprayed. The compound dried fast enough that a steady production rate could be maintained with three masks. In those days nobody thought about what MFP vapor might do to the lungs, so there was no respirator. I'll have to admit though, in 65 years I never had fungus on my lungs. The loft was unheated so I wore a wool sweater when the weather got cold, but it eventually became stiff as a board from MFP overspray and had to be thrown away. Well, that went on for several months, but having finally paid my dues, I began to get some interesting work.

One of the good jobs was to install Geiger-Müller tubes in H&R GLR-200 portable radiation detectors. The tube was about a half-inch in diameter and three inches long, with an electrode on one side, two leads from one end and a thin Nonex glass window sealed on the other. The Nonex was only .005" thick, so the expensive tubes had to be handled very carefully. The G-M tube was held by two fuse clips wrapped with lacing cord, and coated with melted bees wax. That subassembly was wiggled inside a 1.5" diameter Bakelite tube and held in place with a couple of short screws through the fuse holders. A Bakelite plug with a 1/4" hole in its center was fitted in the end of the tube facing the Nonex window and the whole assembly was mounted on the side of a portable cabinet. Radiation in the vicinity entered the hole in the end plug, passed through the Nonex window, and ionized a weak gas mixture in the G-M tube. Pulses generated by the tube were amplified and applied to a meter circuit to display strength of the radiation. A standard gamma ray source was used to calibrate the instrument but preliminary testing was done simply by holding a match in front of the hole. Alpha radiation emitted by the flame produced a full scale indication and the familiar buzzing noise from an internal monitor speaker. A single sheet of paper between the flame and instrument would stop the alpha radiation, but not the gamma rays from the standard. Great fun.

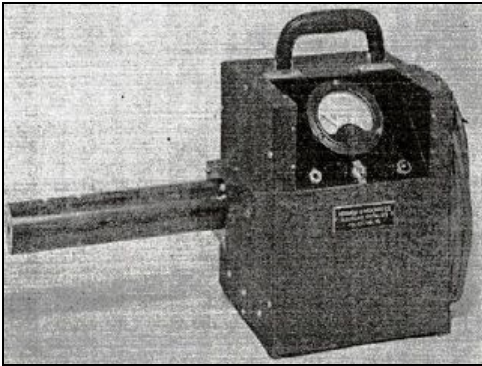


About a dozen of these meters were lined up, waiting for installation of the G-M tubes and final tests. I made a fixture to hold the tubes in their fuse clip mountings while they were wrapped with lacing cord. A small paint brush was used to coat the wrappings with melted bees wax. When the wax solidified, the completed assembly was wiggled into the Bakelite tube and fastened in place, being careful of that thin glass window. Wires from the detector circuit were soldered to G-M tube leads, and after the Bakelite tube was mounted on the side of the cabinet, the instrument was ready for test and calibration.

Everything went well except for one unit which did not display any output from gamma radiation. There was nothing to do but disassemble it and inspect the G-M tube connections. The end plug had to be removed to access the G-M tube. This particular plug had a tight fit and couldn't be pulled straight out, so I put a small screwdriver into the plug's hole to slightly tilt it so it could be withdrawn. As the screwdriver passed through the hole there was a barely audible "tink" – it had gone in too far and went right through the Nonex window of the G-M tube!

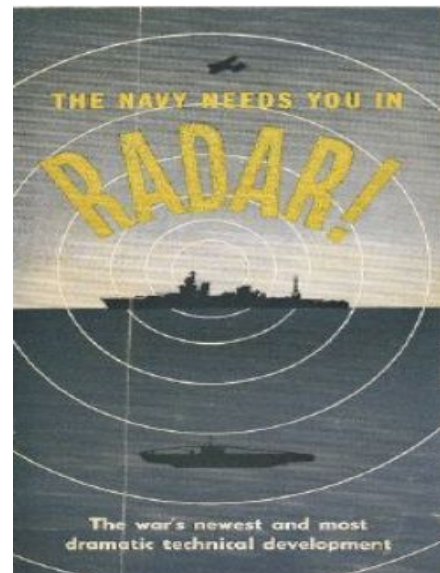
I mentioned previously that Jack Wagenseller, the Chief Engineer, had an even temperament, but I didn't know how he was going to react when told I had just destroyed a thirty dollar tube. He took the signature long draw on his pipe and said the anticipated, "Well now, let's see." Then he frowned and said he would have to dock my salary for the cost of a new tube – two weeks pay at my rate. With that, he broke into a hearty laugh, handed me a new tube to install. No pay cut and he

didn't even mention to be more careful next time. What a great boss!



Another good job came along, this time one without risks. Merchant ships often carried broadcast receivers for crew morale. Superheterodyne receivers, as would normally be used for civilian BC reception, were banned on ships at sea during the war because radiation from the local oscillator could be detected by German submarines with disastrous loss of a ship or even several ships in a convoy. One solution was to incorporate exceptional shielding of the oscillator circuitry, as in the high quality Scott RCH receiver, but that was too costly for mass-produced morale receivers. Instead, most shipboard BC sets avoided a local oscillator by using direct amplification of broadcast RF signals without conversion to an intermediate frequency. In the TRF (Tuned Radio Frequency) receivers built by H&R there were three stages of RF amplification, with interstage resonant circuits tuned by a four-gang variable condenser to cover the broadcast band. Each Miller high-Q interstage transformer was housed in a shield two and a half inches in diameter. The variable condenser was a work of art. The TRF principle was not new: all early radios were high performance TRFs prior to invention of the superhet. In fact, a TRF receiver will produce near-FM quality from good AM stations, but with today's AM programming, who needs it? Our production TRFs had to be tested and repaired if necessary, then they were aligned, which could be tedious due to the number of tuned circuits that had to track across the broadcast band. This was a terrific learning opportunity, gave me a great sense of accomplishment, and turned out to be the most enjoyable job I had at H&R.

In the spring of 1945 I thought about enlisting in the Navy's electronics training program for radar operators. Applicants for the training had to pass the Eddy Test, an electronics aptitude exam, named for Captain William C. Eddy, who conceived the test and coordinated the training program. Some high school pals talked me into going to the recruiting office and taking the test on the spur of the moment one afternoon while we were wandering around downtown. Before the test would be administered, however, it was necessary to pass an eye exam which, with my 20/800 vision, I failed miserably. That was that, I thought, but later in the summer an acquaintance who knew a Chief at the recruiting station arranged with him to give me the Eddy Test before the eye exam. The theory was, I would do so well in the Eddy Test (what youthful ego!) that the Navy would *have* to take me even with poor eyesight. I took the morning of August 6th off from work, reported to the recruiting office as scheduled, and asked to see the Chief who was going to pull off this miracle. "Oh, he transferred out of here Friday, but you can still take the Eddy Test. Just step over here first for an eye exam." That did it, so after failing the eye test again I walked dejected down Market Street to H&R.



Entering the manufacturing area, I was astonished to see all work that had been in progress the day before now covered with brown wrapping paper and the employees sitting around chatting with each

other. When I asked what was going on, one of the girls replied, "Haven't you heard? We dropped a new kind of bomb on Japan, so powerful it destroyed a whole city. *The war is over!*" Management immediately assured everybody our military contracts wouldn't be cancelled, but by afternoon telegrams arrived from Washington to do just that. There wasn't enough commercial work to keep many on the payroll, so my days at H&R came to a sudden, dramatic end.

Next time, some final thoughts and how experience at H&R shaped my future in engineering and ham radio.



Jack, K3CHR and Chuck K3QLY and ... *pretzels!*



Anxiously awaiting the "opening bell"?



If you build it, they will eat!



Frank, Jack and Bill working up an appetite



Chef Steve and young assistants getting ready for the hungry hordes



Hey, is that *George Baker Able?*



Bob Freer, W3YLT, Red Cross volunteer stopped by ... and snagged us some extra points too!



Andrew and the gang at the GOTA station



Al, W3STW prepares to contact the mother ship



Night ops with Carmen, KE3QB and Bob KB2ERL



The tech table with band flash drives



Gentlemen - and ladies! - start your engines



Fred, KA3IRJ and Penny setting up shop

For Sale:

Double Braided Dacron Rope 3/16 diameter.
Black in color. Will cut to requested length. \$0.14
per foot.

Mosley TA-33 beam \$100.00 each (2 available)

Cushcraft A-3 beam \$100.00 (1 available)

Ham M rotors with control boxes rebuilt and
guaranteed for one year. \$150.00 each (3 available)

Contact **Steve, WU3I**, with any questions about the
items above.

*Please feel free to forward to other clubs of which you
are a member.*

And...

Contact Tom Bohlander WA3KLR, 215-536-1331

6 foot telephone relay rack on castors,
Ballantine ac voltmeter Model 300G, 7" rack-
mount,
Optoelectronics FC-50 frequency counter,
Pagel Electronics 6-VHF-A frequency counter,
National One-Ten VHF super-regen receiver, c.
1936, restored.
ARRL handbooks 1933 - onward
RCA Aeriola Senior, 1-tube battery receiver
Atwater Kent 35, c. 1926, fair condition
Zenith tombstone receiver Model 5-S-228, c. 1938,
restored, excellent original finish.
Kreco 10 meter coaxial vertical antenna,
40 mobile antennas,
old technical books and parts.

**Phil-Mont Mobile Radio Club has radio
equipment donated to the Scholarship Fund for
sale. Please review the list below and contact
Steve, WU3I, if you have any interest or
questions. Contact him at wu3i@arrl.net -**

Radio shack Pro 40 headphones
Radio shack horn speaker
Radio shack pro 2026 Scanner
M3 freq counter
M3 freq standard
Motorola mobile HT charger
Clear speech base by amcomm
Radio shack digital Multimeter
Diawa CN465 2m/70 cm meter 15/75 watts
Motorola house charger for ht
Kenpro KR400 RC rotor controller
Uniden Force HT with converttacom and extra
battery
Scanner antenna
Ameritron AL 82 amp in service
Drake L4B
Yaesu FT 847
Ameritron RCS8V coax Switch
Autek WM1 Meter
Rig Blaster
Step Ir 4 element beam
Yaesu G800s Rotor
Wire antennas
Hazer system h2
u/v vertical antenna
50 feet tower with fold over base
6 foot create roof tower with thrust
bearing
Ham IV with controller
Alliance HD 73 with controller

**MS150 is fast approaching and
still needs a few good hams!
Contact Carmen, KE3QB to sign
up!**

August at PMRC ...*There are no meetings in July and August*

1st	Sun: KC2PMW NCS
8th	Sun: W3STW NCS
15th	Sun: KB3IV NCS
16th	1st Transatlantic telegraph message, 1858
20th	1st Licensed radio broadcast, 1920
22nd	Sun: N3OWM NCS
26th	Thurs: VE session
29th	Sun: N3QV NCS

And don't forget the **ARES** net every
 Sunday night at 2100L on the club repeater
 and the new **Digital Net** Tuesdays at 1900L.

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First Class Mail

The Blurb
 The Phil-Mont Mobile Radio Club, Inc
 310 Saw Mill Lane, Apt 6D, Horsham PA 19044